



93-23-08

# 2662

In the application of:	Stephen Melvin Enrique Musoll Mario D. Nemirovsky Nandakumar Sampath
Serial No.:	09/900393
Filed:	07/05/01
Docket:	MIPS.0175-00-US
For:	METHOD AND APPARATUS FOR NON-SPECULATIVE PRE-FETCH OPERATION IN DATA PACKET PROCESSING

**INFORMATION DISCLOSURE STATEMENT  
SUBMITTED UNDER 37 CFR 1.97(D) AND 1.97 (E)(2)**

Attached hereto is Form PTO-1449 listing documents believed relevant to the subject application. It is respectfully requested that the Examiner review the information disclosed herein in detail, independently evaluate each item carefully in the consideration of the pending claims and return an initialed copy of each form to the undersigned.

This disclosure statement should not be construed as a representation that a search has been made, that no other material information as defined in 37 C.F.R. § 1.56(a) exists, or as an admission that the information cited in the statement is, or is considered to be, material to patentability as defined in 37 CFR § 1.56(b) or is available as a reference under 35 U.S.C. § 102 *et seq.* Applicant reserves the right to swear behind or otherwise disprove the alleged "prior" nature of any art cited should the facts support and the situation warrant such an action.

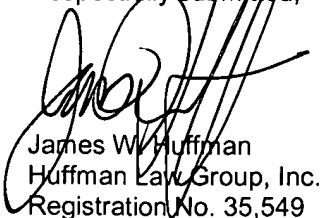
It is believed that this disclosure complies with the requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98, and the Manual of Patent Examining Procedures § 609. If for some reason the examiner considers otherwise, it is respectfully requested that the undersigned be called so that any deficiencies can be remedied.

A copy of each document is enclosed. Some of the documents may have markings thereon. No significance is intended to be attached to the markings.

No item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in § 1.56(c) more than three months prior to the filing of the information disclosure statement. The information cited in the information disclosure statement was cited by the United States Patent Office in one or more applications that are related to the present application.

Also attached hereto is a check in the amount of **\$180.00** for the fee set forth in § 1.17(p).

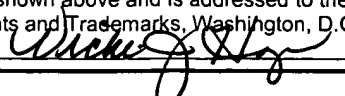
Respectfully submitted,

  
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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	09/900393
				Filing Date	07/05/01
				First Named Inventor	Stephen Melvin Enrique Musoll Mario D. Nemirovsky Nandakumar Sampath
				Group Art Unit	Hassan Kizou
				Examiner Name	2662
Sheet	1	of	3	Attorney Docket Number	MIPS.0175-00-US

U.S. PATENT DOCUMENTS						
Examiner Initials	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup>			
	AA	4200927		Huges et al	04/29/1980	
	AB	5708814		Short et al	01/13/1998	
	AC	5724565		Dubey et al	03/03/1998	
	AD	5784649		Begur et al	07/21/1998	
	AE	6460105		Jones et al	10/1/2002	
	AF	6523109		Stephan G. Meier	02/18/2003	
	AG	6529515		Raz et al	03/04/2003	
	AH	6640248		Jacob W. Jorgensen	10/28/2003	
	AI	6625808		David R. Tarditi	09/23/2003	
	AJ	6738371		Lawrence Ayers	05/18/2004	
	AK	6738378		Tuck, III et al	05/18/2004	
	AL	6813268		Kalkunte et al	11/02/2004	
	AM	6535905		Kalafatis et al	03/18/2003	
	AN	20010004755		Levy et al	06/21/2001	
	AO	20010005253		Hiroshi Komatsu	06/28/2001	
	AP	20020083173		Musoll et al	06/27/2002	
	AQ	09/608750		Nemirovsky et al	Not published	

FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No. <sup>1</sup>	Foreign Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number <sup>4</sup>	Kind Code <sup>5</sup>			
	BA	WO03005645 A1		Sampath et al	06/25/02	

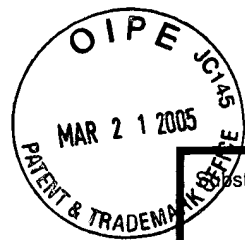
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<sup>1</sup>Unique citation designation number. <sup>2</sup>See attached Kinds of U.S. Patent Documents. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST. 3).

<sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

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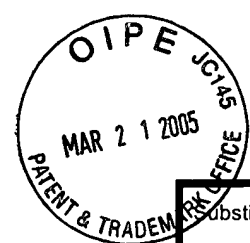
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				Examiner Name	Hasan Kizou
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OTHER PRIOR ART-NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>	
	CQ	DIEFENDORFF, KEITH ET AL. "Altivec Extension to PowerPC Accelerates Media Processing." <i>IEEE Journal of Microelectronics</i> . Vol. 20, No. 2 (2000): pp. 85-95		
	CR	GRUNEWALD, WINFRIED ET AL. "Towards Extremely Fast Context Switching in a Block Multithreaded Processor." <i>Proceedings of EUROMICRO 22</i> , 1996. pp. 592-599		
	CS	BRADFORD, JEFFREY ET AL. "Efficient Synchronization for Multithreaded Processors." <i>Workshop on Multithreaded Execution, Architecture, and Compilation</i> . Jan-Feb 1998. pp. 1-4		
	CT	PAI, VIJAY ET AL. "An Evaluation of Memory Consistency Models for Shared-Memory Systems with ILP Processors." <i>Proceedings of ASPLOS-VII</i> , Oct. 1996: pp. 12-23, ACM, Inc.		
	CU	YOAZ ET AL. "Speculation Techniques for Improving Load Related Instruction Scheduling." 1999. Pages 42-53, IEEE.		
	CV	KESSLER, R. E. "The Alpha 21264 Microprocessor: Out-of-Order Execution at 600 MHz." August 1998.		
	CW	DONALSON ET AL. "DISC: Dynamic Instruction Stream Computer, An Evaluation of Performance." 26 <sup>th</sup> <i>Hawaii Conference on Systems Sciences</i> . Vol. 1. 1993. Pages 448-456.		
	CX	NEMIROVSKY ET AL. "DISC: Dynamic Instruction Stream Computer." ACM. 1991. Pages 163-171		
Examiner Signature			Date Considered	

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	CA	MELVIN ET AL, "Extended Instruction Set for a Packet Processing Applications," July 5, 2001, Disclosure Document #496559, USPTO			
	CB	MUSOLL ET AL, "Hardware Algorithm for Allocating and De-Allocating Consecutive Blocks of Memory," April 3, 2001, Disclosure Document #491557, USPTO			
	CC	MUSOLL ET AL, "Mechanism to Overflow Packets to a Software Controlled Memory When They Do Not Fit into a Hardware Controlled Memory," July 3, 2001, Disclosure Document #496391, USPTO			
	CD	MUSOLL ET AL., "Mechanism for Allowing a Limited Packet Head and/or Tail Growth Without Moving the Packet to a Different Memory Location," April 16, 2001, Disclosure Document #492429, USPTO			
	CE	MUSOLL ET AL., "Mechanism to Activate a Context When No Stream is Running in a Multi-Streaming Processing Core," April 16, 2001, Disclosure Document #492431, USPTO			
	CF	MUSOLL, ENRIQUE, "Functional Validation of a Packet Management Unit," May 18, 2001, Disclosure Document #494011, USPTO			
	CG	YAMAMOTO, WAYNE. <i>An Analysis of Multistreamed, Superscalar Processor Architectures</i> . University of California Santa Barbara Dissertation. December 1995. Santa Barbara, US.			
	CH	YAMAMOTO et al. "Increasing Superscalar Performance Through Multistreaming." <i>Parallel Architectures and Compilation Techniques (PACT '95)</i> . 1995			
	CI	The PowerPC Architecture: A Specification for a New Family of RISC Processors. 2 <sup>nd</sup> Ed. May 1994. pp. 70-72. Morgan Kaufmann. San Francisco, US.			
	CJ	MC68020 32-Bit Microprocessor User's Manual. 3 <sup>rd</sup> Ed.. 1989. pp. 3-125, 3-126, and 3-127. Prentice Hall, NJ, US.			
	CK	POTEL, M. J. "Real-Time Playback in Animation Systems." <i>Proceedings of the 4<sup>th</sup> Annual Conference on Computer Graphics and Interactive Techniques</i> . 1977. pp. 72-77. San Jose, CA, US.			
	CL	ARM Architecture Reference Manual. 1996. pp. 3-41, 3-42, 3-43, 3-67, and 3-68. Prentice Hall, NJ, US.			
	CM	ESA/390 Principles of Operation. IBM Online Publications Center Reference Number SA22-7201-08. Table of Contents and paras. 7.5.31 and 7.5.70. IBM Corporation. Boulder, CO, US.			
	CN	MC88110 Second Generation RISC Microprocessor User's Manual. 1991. pp. 10-66, 10-67, and 10-71. Motorola, Inc.			
	CO	DIEFENDORFF, KEITH ET AL. "Organization of the Motorola 88110 Superscalar RISC Microprocessor." <i>IEEE Journal of Microelectronics</i> . April 1992. pp. 40-63. Vol. 12, No. 2. IEEE. New York, NY, US.			
	CP	KANE, GERRY. <i>PA-RISC 2.0 Architecture</i> . 1996, pp. 7-106 and 7-107. Prentice Hall. NJ, US.			
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